

INCH-POUND

MIL-DTL-55302/77D
w/AMENDMENT1
26 July 2010
SUPERSEDING
MIL-DTL-55302/77D
12 November 2004

DETAIL SPECIFICATION SHEET

CONNECTORS, PRINTED CIRCUIT SUBASSEMBLY AND ACCESSORIES,
PIN, RIGHT ANGLE, FOR MULTILAYERED
PRINTED WIRING BOARDS (.100 SPACING)

Inactive for new design after 1 October 1986.

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-55302.

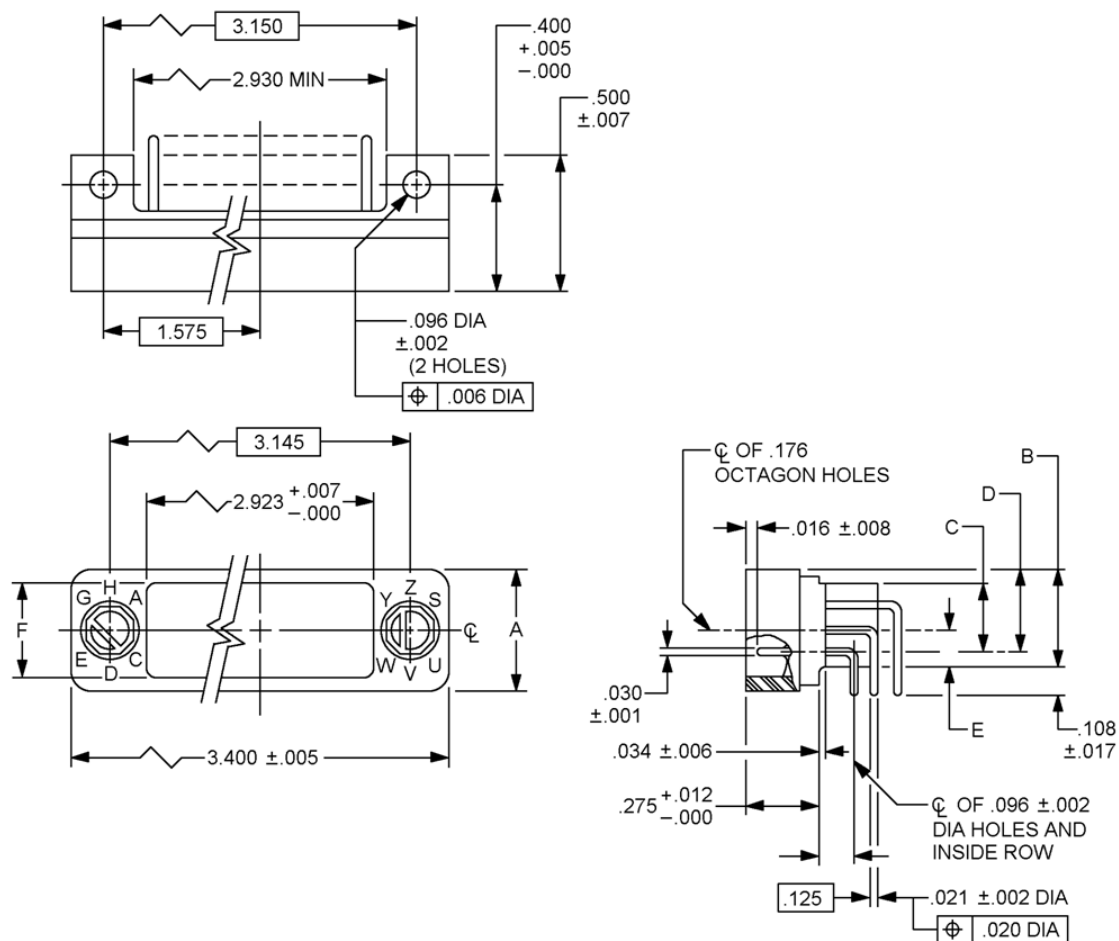


FIGURE 1. Connectors, pin, right-angle, for multilayered printed wiring board .100 (2.54 mm) spacing.

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Inches	mm	Inches	mm
.001	0.03	.034	0.86
.002	0.05	.096	2.44
.005	0.13	.108	2.74
.006	0.15	.125	3.18
.007	0.18	.275	6.99
.008	0.20	.400	10.16
.012	0.30	.500	12.70
.016	0.41	1.575	40.01
.017	0.43	2.923	74.24
.020	0.51	2.930	74.42
.021	0.53	3.145	79.88
.030	0.76	3.150	80.01
		3.400	86.36

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerances are ± 0.010 (0.25 mm).
4. These connectors mate with connectors specified in MIL-DTL-55302/76 and are primarily for use with single-sided, double-sided, or multilayered printed wiring boards. When mated, connectors will allow .010 inch minimum total diametrical float between mating dielectric surfaces.
5. Mating connectors provide a total of 64 different polarization positions. Polarization components conforming to M55302/78-03 are supplied uninstalled with the connector.
6. For dimensions A through F, see table I.
7. All contacts are on .100 spacing between contacts and between contact rows, square grid, 29 contacts in a row.

FIGURE 1. Connectors, pin, right-angle, for multilayered printed wiring board .100 (2.54 mm) spacing - Continued.

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Requirements:

Dimensions and configuration: See figure 1 and table I.

Material: In accordance with MIL-DTL-55302.

Plating: The contact plating shall be gold in accordance with ASTM B488, type II, code C, class 1 over 100 microinches of copper in accordance with SAE-AMS2418.

Contact identification: Numerals shall be molded as follows, front face: End of contact rows, 1, 29, 30, 58 on -01 and 1, 29, 58, 87 on -02.

Mating and unmating: The maximum mating force, in pounds, shall not exceed a value equal to 0.5 times the number of contacts, and the withdrawal force, in pounds, shall be a minimum of 0.08 times the number of contacts and shall not exceed the measured insertion force.

Contact resistance: The average resistance of all contact pairs measured shall not exceed 0.010 ohm, and no individual contact pair shall have a resistance exceeding 0.020 ohm.

Dielectric withstanding voltage:

Sea level: 1,300 volts rms, 60 Hz, ac.

High altitude: 325 volts rms, 60 Hz, ac.

Pin size: 22.

Mating connectors: See MIL-DTL-55302/76.

Current rating: 3.0 amperes maximum.

Insert arrangement: See figure 2.

Part or Identifying Number (PIN): M55302/77-(dash number from table I).

TABLE I Dash number and dimensions.

Dash number	Number of contacts	Dimensions ^{1/}						Weight pounds max
		A	B	C	D	E	F	
		±.005 (0.13)	+.004 (0.10) -.005 (0.13)	+.005 (0.13) -.000	+.004 (0.10) -.005 (0.13)	+.004 (0.10)	+.000 -.005 (0.13)	
01	58	.355 (9.02)	.266 (6.76)	.153 (3.89)	.246 (6.25)	.092 (2.34)	.260 (6.60)	.020 (9.07 grams)
02	87	.455 (11.56)	.366 (9.30)	.253 (6.43)	.346 (8.79)	.142 (3.61)	.356 (9.04)	.028 (12.70 grams)

^{1/} Metric equivalent are given for information only. Millimeters are in parentheses.

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Amendment notations. The margins of this specification are marked with vertical lines to indicate where modifications from this amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

Referenced documents. In addition to MIL-DTL-55302, this document references the following:

MIL-DTL-55302/76
ASTM B488
SAE-AMS2418

CONCLUDING MATERIAL

Custodians:
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5935-2010-112)

Review activity:
Air Force - 19

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.daps.dla.mil>.